

Notice of Allowability

Application No.

10/719,179

Applicant(s)

CHEN ET AL.

Examiner

Kevin Bates

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1-17-08.
2. ☒ The allowed claim(s) is/are 1-2, 6-16, 20-21, and 24, renumbered 1-16.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

This Office Action is in response to a communication made on January 17, 2008.

Claims 3-5, 17-19, and 22-23 have been cancelled.

Claims 1-2, 7-8, 10-12, 14-16, 21 and 24 have been amended.

Claims 1-2, 6-16, 20-21, and 24 are pending in this application.

Claims 1-2, 6-16, 20-21, and 24 with the examiner's amendment are allowable.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Dan Shifrin Reg. No. 34,473 on February 4, 2008.

The application has been amended as follows:

1. (Previously Presented) A method for configuring a path between nodes on a fibre channel fabric, comprising:

modifying a world wide node name (WWNN) of a target node connected to a fabric by replacing a byte of the WWNN with a byte indicative of a slot number in which a port is located to generate a world wide port name (WWPN) of each port in the target node;

querying a name server for addresses of ports of the target node;

receiving the addresses of connected ports;
querying the name server for WWPNs corresponding to the received addresses;
receiving the WWPNs of the connected ports; and
determining an interface_id of each connected port, the interface_id
corresponding to the slot number of the target node in which the port is located.

2. (Previously Presented) The method of claim 1, further comprising:
from the WWNN of a target node and determined interface_id of a selected port,
obtaining the WWPN of the selected port;
querying the name server with the WWPN of the selected port;
receiving the address of the selected port; and
opening a session with the selected port.

3-5. (Cancelled)

6. (Original) The method of claim 1, wherein the address of each connected port
is a destination_id.

7. (Currently Amended) A storage area network, comprising:
a source node;
a target node having a world wide node name (WWNN);

a selected port in the target node having a port address and a world wide port name (WWPN);

a fabric to which the source node and the target node are coupled;

a data structure associated with the source node establishing a relationship between the WWPN of the selected port with a physical slot of the target node in which the selected port is located, the relationship comprising a byte of the WNN of the target node being a byte indicative of a slot number of the slot in which a port is located;

means for obtaining the address of the selected port;

means for obtaining the WWPN of the selected port in response to the obtained port address; and

means associated with the source node for accessing the data structure and generating the interface_id of the selected port in response to the obtained WWPN.

8. (Currently Amended) The storage area network of claim 7, further comprising:

means associated with the source node for accessing the data structure and generating the WWPN of the selected port from an input ~~WWPN~~ WWNN and interface_id;

means for obtaining the address of the selected port from the generated WWPN;
and

means for opening a session with the selected port in the target node in response to obtaining the port address.

9. (Original) The storage area network of claim 8, further comprising a name server, comprising:

means for receiving a query from the source node requesting addresses of ports in the target node; and

means for transmitting the port addresses to the source node.

10. (Previously Presented) The storage area network of claim 9, wherein the name server further comprises:

means for receiving a query from the source node requesting WWPNS corresponding to the transmitted port addresses; and

means for transmitting the WWPNS to the source node.

11. (Previously Presented) The storage area network of claim 9, wherein the name server further comprises:

means for receiving the WWPNS of the selected port and a query from the source node requesting the address of the port corresponding to the received WWPNS; and

means for transmitting the address of the selected port to the source node.

12. (Previously Presented) The storage area network of claim 8, wherein the means for obtaining the address of the selected port comprises:

means for transmitting the WWPN of the selected port and a query to a name server on the fabric requesting the address of the port corresponding to the transmitted WWPN; and

means for receiving the port address from the name server.

13. (Original) The storage area network of claim 7, wherein the means for obtaining the address of the selected port comprises:

means for transmitting a query to a name server on the fabric requesting addresses of ports in the target node; and

means for receiving the port addresses from the name server, the received port addresses including the address of the selected port.

14. (Previously Presented) The storage area network of claim 13, wherein the means for obtaining the WWPN of the selected port comprises:

means for transmitting a query to a name server on the fabric requesting WWPNs corresponding to the received port addresses; and

means for receiving the WWPNs from the name server, the received WWPNs including the WWPN of the selected port.

15. (Currently Amended) A computer program product of a computer readable medium usable with a programmable computer, the computer program product having

computer-readable code embodied therein for configuring a path between nodes on a fibre channel fabric, the computer-readable code comprising instructions for:

modifying a world wide node name (WWNN) of a target node connected to a fabric by replacing a byte of the WWNN with a byte indicative of a slot number in which a port is located to generate a world wide port name (WWPN) of each port in the target node;

querying a name server for addresses of ports of the target node;

receiving the addresses of connected ports;

querying the name server for WWPNs corresponding to the received addresses;

receiving the WWPNs of the connected ports; and

determining an interface_id of each connected port, the interface_id corresponding to the slot number of the target node in which the port is located.

16. (Currently Amended) The program-product computer readable medium of claim 15, further comprising instructions for: from a WWNN of a target node and the interface_id of a selected port, generating the name of the selected port; querying the name server with the name of the selected port; receiving the address of the selected port; and opening a session with the selected port.

17-19. (Cancelled)

20. (Currently Amended) The ~~program-product~~ computer readable medium of claim 15, wherein the address is a destination_id.

21. A method for establishing a path between nodes on a fibre channel fabric, comprising:

modifying a world wide node name (WWNN) of a target node connected to a fabric by replacing a byte of the WWNN with a byte indicative of a slot number in which a port is located to generate the name of each port in the target node;

querying a name server for addresses of ports of the target node;

receiving the address of a connected port;

querying the name server for world wide port names (WWPNs) ~~WWPNs~~ corresponding to the received addresses;

receiving the WWPN of the connected port;

determining an interface_id of the connected port, the interface_id corresponding to the slot number of the target node in which the port is located;

from a WWNN of a target node and the interface_id of a selected port, generating the WWPN of the selected port;

querying the name server with the WWPN of the selected port;

receiving the address of the selected port; and

opening a session with the selected port.

22-23. (Cancelled)

24. (Previously Presented) The method of claim 21, wherein the address of each connected port is a destination_id.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach, suggest neither singly nor in combination the idea of modifying the world wide name of a node in a fibre channel with a byte indicative of a slot number in which a port is located to create a world wide porn name. Also in interview on February 4, 2008, that the computer-readable medium recited in claim 15 was not intended to cover non-statutory communication mediums.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 9 am - 5 pm.

Application/Control Number:
10/719,179
Art Unit: 2153

Page 10

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on (571) 272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QR T D t

Kevin Bates
February 5, 2008


KRISNA LIM
PRIMARY EXAMINER